REOPTIMIZATION TRIGGERING BY PATH COMPUTATION ELEMENTS

Abstract of the Disclosure

5   A mechanism to alleviate bandwidth fragmentation in a network employing path computation element(s) to place MPLS Traffic Engineering tunnels. One application is a multiple Autonomous System or multiple area network employing distributed computation of MPLS Traffic Engineering LSPs. A particular path computation element may determine that bandwidth fragmentation is present based on monitoring of path

10   computation failures where desired paths are blocked due to bandwidth constraints. In response to the detected bandwidth fragmentation condition, the path computation element floods a routing notification within its Autonomous System or area. Nodes respond to the routing notification by requesting reoptimization of their own previously requested Traffic Engineering LSPs allowing the path computation element an

15   opportunity to alleviate bandwidth fragmentation.